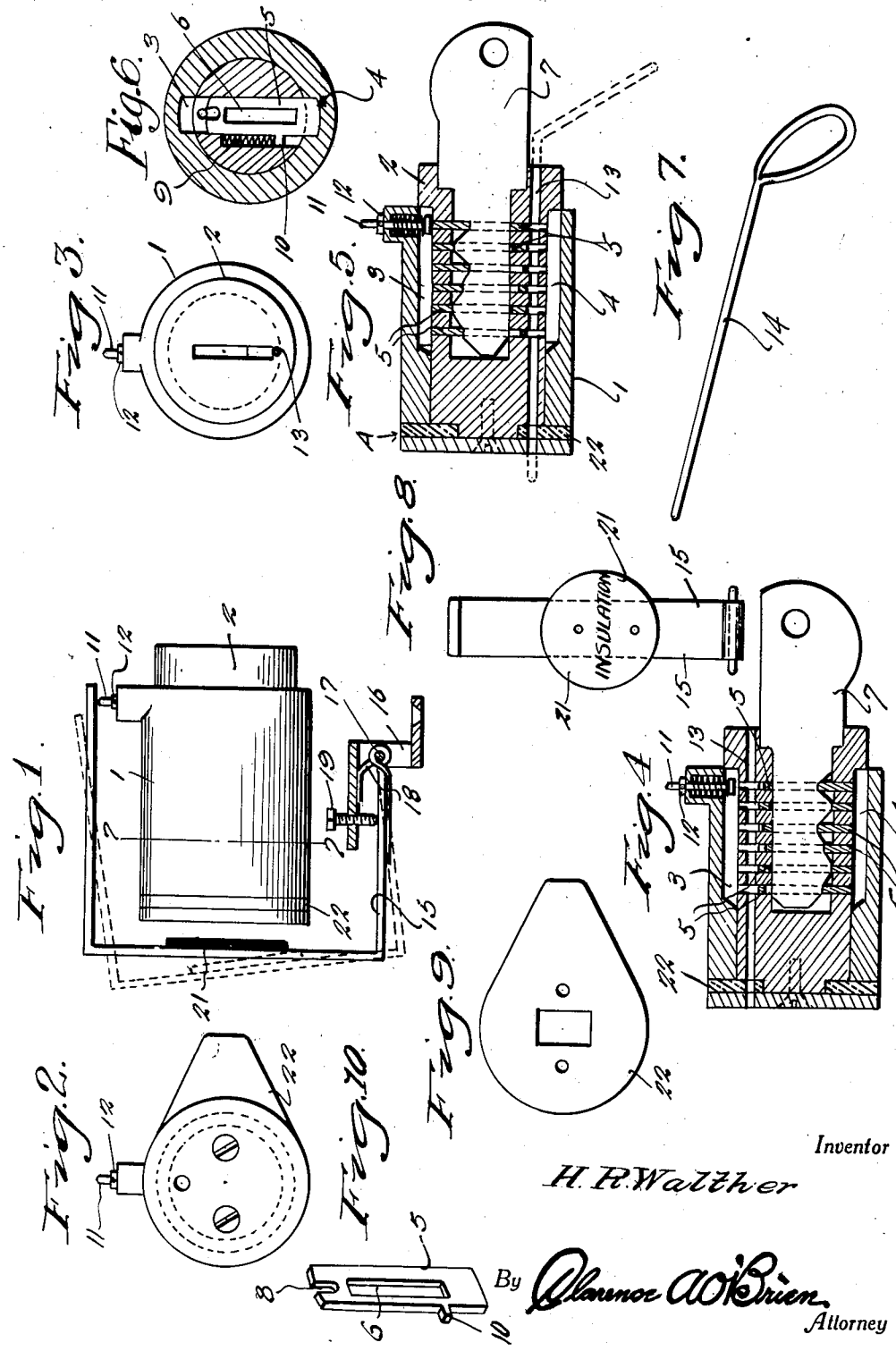
Aug. 7, 1934. H. R. WALTHER 1,969,388

LOCK FOR BURGLAR ALARMS

Filed Sept. 16, 1933



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Patented Aug. 7, 1934 1,969,388

UNITED STATES PATENT OFFICE

1,969,388

LOCK FOR BURGLAR ALARMS

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Application September 16, 1933, Serial No. 689,763

3 Claims. (Cl. 200—42)

This invention relates to a lock for a burglar alarm, mainly designed for use on motor vehicles, the general object of the invention being to provide a lock for controlling the alarm circuit and one which cannot be operated either with the key designed for the lock or other keys or objects without the use of a pin and the key designed for the lock.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a side view of the improved lock and the pin operated member.

Figure 2 is a view of the rear end of the lock.

Figure 3 is a front view thereof.

Figure 4 is a sectional view through the lock, with the parts in "off" position.

Figure 5 is a similar view with the parts in "on" position and showing the key and pin inserted.

Figure 6 is a section on line 6—6 of Figure 1.

Figure 7 is a view of the pin.

Figure 8 is a view of the pin operated member.

Figure 9 is a view of the cam attached to the lock.

Figure 10 is a view of one of the tumblers.

In the drawing, the letter A indicates my improved lock which is preferably located in a side of the automobile, and said lock comprises a cylinder 1 and the barrel 2. Said cylinder is formed with the internal groove 3 in its top and a similar groove 4 in its bottom part and the barrel carries a plurality of plate-like tumblers 5, one of which is shown in Figure 10. Each tumbler is provided with an elongated slot 6 for the passage of a key 7 and each tumbler has a notch 8 in one end thereof. A spring 9 is provided for each tumbler and is located in a recess in the barrel and engages a tip 10 on the tumbler and these springs tend to hold the unnotched ends of the tumblers in the groove 4 when the barrel is in "off" position and in the groove 3 when the barrel is in "on" position. However, when the proper key 7 is inserted, the tumblers will be moved to position where they will lie wholly within the barrel so that the barrel can be turned by the key.

When the key is being inserted or withdrawn, the first tumbler, when moved upwardly into the groove 3, will raise a spring pressed plunger 11, the upper end of which carries an adjustable collar 12 so that the plunger can be adjusted. A longitudinally extending passage 13 is formed in the barrel for receiving a pin 14, shown in Figure 7, and said pin will pass through the notches 8 when the tumblers have been adjusted by the proper sized key being placed in the lock.

A substantially U-shaped member 15 is pivoted to a bracket 16, as shown at 17, and a spring 18 tends to hold the upper limb of this U-shaped member, which is preferably of spring metal, above the outer end of the plunger, but not touching the same, as shown in Figure 1 in full lines. A set screw 19 is carried by the bracket to regulate the amount of movement of the member. This member 15 carries a disk 21 of non-conducting material for engagement by the pin, when the same is passed through the passage 13, so that by pushing against the pin, the member 15 is moved to the dotted line position shown in Figure 1 so that it will not contact the plunger and thus raising of the plunger will not close a circuit, as will be hereinafter described.

The inner end of the barrel carries a cam 22 which is, of course, moved from one position to another when the barrel is turned by the key. This cam 22 operates a switch located in the circuit, and when the lock is in the "off" position, the cam 22 holds the switch in open position.

When the operator leaves the automobile and wishes to set the alarm mechanism, he first inserts his key, as shown in Figure 4, and as the parts are in "off" position, the raising of the first tumbler, of course, will not operate the alarm by the raising of the plunger. He then turns the key a half revolution to place the parts in the position they occupy in Figure 5. This movement will move the cam 22 out of engagement with the switch so that the same will move to a position to close the circuit and thus the parts are in position to operate the alarm if a door of a car is opened or a hood raised or any other parts are removed which are protected by the circuit.

With the parts in the position shown in Figure 5 and before removing the key 7, the operator runs the pin 14 through the passage 13 and in this position of the parts, the tumblers are in position where they will not interfere with the insertion of the pin. By pressing upon the pin, its inner end will engage the disk 21 and

move the member 15 to the dotted line position shown in Figure 1 and then the operator pulls out the key and as the wards of the key pass the first tumbler, they will raise the same which in turn will raise the plunger 11, but the alarm will not be operated as the circuit is broken by the member 15 being moved out of the path of the plunger. Thus the key can be withdrawn and when the operator returns to his car, he will again insert the key and quickly turn the lock to "off" position before the alarm gets a good start, after which he can open the door without sounding the alarm. The pin is used only in setting the alarm and is not necessary to turn the alarm "off". It will be seen that the insertion of any key, even the proper one, will start the alarm.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What is claimed is:—

1. In a device of the class described, a lock including a cylinder and a barrel, key operated tumblers carried by the barrel, a plunger operated by one of the tumblers upon movement of the same by the key, a movable member engaged by the raised plunger, said barrel having a passage therethrough and a pin adapted to be inserted through the passage into contact with said movable member to move the same out of the path of the plunger, and a circuit controlled by the lock and when closed by the lock being broken by disengagement of the member with the plunger.

2. In a device of the class described, a lock including a barrel having a part thereon for controlling a circuit, key operated tumblers carried by the barrel, a plunger operated by movement of one tumbler by a key, a movable member arranged in the path of the tumbler and forming part of the circuit when engaged by the tumbler, and means associated with the lock for moving said member out of the path of the tumbler.

3. A lock of the class described comprising a cylinder, a barrel, a switch operating member carried by the barrel, a plurality of plate-like tumblers slidably arranged in the barrel and operated by a key, spring means for moving the tumblers to locking position, a plunger operated by movement of one of the tumblers, said tumblers having openings therein and the barrel having a passage therethrough for receiving a pin, a spring operated member normally held in the path of the plunger, and a pin adapted to be inserted in the passage through the openings in the tumblers for moving said member out of the path of the plunger.

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